***IP PYTHON PROJECT CODES***

import pandas as pd

import numpy as np

import matplotlib.pyplot as py

import datetime

df=pd.read\_excel(r"C:\Users\harsh\Downloads\Car\_sales.xlsx")

df['Latest\_Launch']=pd.to\_datetime(df['Latest\_Launch'])

#STARTING OF THE PROGRAMME

print("If you wish to pick a car for yourself, enter Y")

print("If you do not wish to pick a car for yourself, enter N")

a=(input("Enter your choice from Y/N : "))

if(a=='Y'):

print(" A) Do you wish to see the performane of cars of year 2011...")

print(" B) Do you wish to see the performane of cars of year 2012...")

print(" C) Do you wish to see the performane of cars of years 2011 and 2012 combined...")

b=(input("Enter your choice from A/B/C to see performance of cars : "))

if(b=='A'):

print("Enter your choice to see the performance of cars in 2011 in various aspects")

print(" Enter 1 if you wish to see the 10 leading fuel efficient cars : ")

print(" Enter 2 if you wish to see the Leading power Performance Stats : ")

print(" Enter 3 if you wish to see the Best HorsePower Engine : ")

print(" Enter 4 if you wish to see the price list of cars (from highest to lowest) : ")

print(" Enter 5 if you wish to see the information regarding the most sold car : ")

c=(input("Enter your choice : "))

if(c=='1'):

filter1=df["Latest\_Launch"]< datetime.datetime(2011,12,31)

kk=df.where(filter1,inplace=True)

aa=df.sort\_values(by='Fuel\_efficiency',ascending=False)

ab=aa.head(10)

ac=ab[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Fuel\_efficiency']]

pd.set\_option('expand\_frame\_repr', False)

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("10 leading fuel efficient cars are : \n ",ac)

if(c=='2'):

filter1=df["Latest\_Launch"]< datetime.datetime(2011,12,31)

kk=df.where(filter1,inplace=True)

ad=df.sort\_values(by='Power\_perf\_factor',ascending=False)

ae=ad.head(1)

af=ae[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Power\_perf\_factor']]

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("Cars for leading Power performance stats are : \n ",af)

if(c=='3'):

filter1=df["Latest\_Launch"]< datetime.datetime(2011,12,31)

kk=df.where(filter1,inplace=True)

ag=df.sort\_values(by='Horsepower',ascending=False)

ah=ag.head(1)

ai=ah[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Horsepower']]

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("Cars with best horsepower engine : \n ",ai)

if(c=='4'):

filter1=df["Latest\_Launch"]< datetime.datetime(2011,12,31)

kk=df.where(filter1,inplace=True)

aj=df.sort\_values(by='Price\_in\_thousands',ascending=False)

ak=aj[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Horsepower']]

pd.set\_option('expand\_frame\_repr', False)

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("price list of the cars : \n ",ak)

if(c=='5'):

filter1=df["Latest\_Launch"]<datetime.datetime(2011,12,31)

kk=df.where(filter1,inplace=True)

al=df.sort\_values(by='Sales\_in\_thousands',ascending=False)

aw=al.head(1)

am=aw[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Sales\_in\_thousands','Price\_in\_thousands','Horsepower']]

pd.set\_option('expand\_frame\_repr', False)

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("price list of the cars : \n ",am)

elif(b=='B'):

print("Enter your choice to see the performance of cars in 2012 in various aspects")

print(" Enter 1 if you wish to see the 10 leading fuel efficient cars : ")

print(" Enter 2 if you wish to see the Leading power Performance Stats : ")

print(" Enter 3 if you wish to see the Best HorsePower Engine : ")

print(" Enter 4 if you wish to see the price list of cars (from highest to lowest) : ")

print(" Enter 5 if you wish to see the information regarding the most sold car : ")

d=(input("Enter your choice : "))

if(d=='1'):

filter1=df["Latest\_Launch"]>datetime.datetime(2011,12,31)

kk=df.where(filter1,inplace=True)

aa=df.sort\_values(by='Fuel\_efficiency',ascending=False)

ab=aa.head(10)

ac=ab[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Fuel\_efficiency']]

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("10 leading fuel efficient cars are : \n ",ac)

if(d=='2'):

filter1=df["Latest\_Launch"]> datetime.datetime(2011,12,31)

kk=df.where(filter1,inplace=True)

ad=df.sort\_values(by='Power\_perf\_factor',ascending=False)

ae=ad.head(1)

af=ae[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Power\_perf\_factor']]

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("Cars for leading Power performance stats are : \n ",af)

if(d=='3'):

filter1=df["Latest\_Launch"]> datetime.datetime(2011,12,31)

kk=df.where(filter1,inplace=True)

ag=df.sort\_values(by='Horsepower',ascending=False)

ah=ag.head(1)

ai=ah[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Horsepower']]

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("Cars with best horsepower engine : \n ",ai)

if(d=='4'):

filter1=df["Latest\_Launch"]>datetime.datetime(2011,12,31)

kk=df.where(filter1,inplace=True)

aj=df.sort\_values(by='Price\_in\_thousands',ascending=False)

ak=aj[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Horsepower']]

pd.set\_option('expand\_frame\_repr', False)

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("price list of the cars : \n ",ak)

if(d=='5'):

filter1=df["Latest\_Launch"]>datetime.datetime(2011,12,31)

kk=df.where(filter1,inplace=True)

al=df.sort\_values(by='Sales\_in\_thousands',ascending=False)

ay=al.head(1)

am=ay[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Sales\_in\_thousands','Price\_in\_thousands','Horsepower']]

pd.set\_option('expand\_frame\_repr', False)

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("price list of the cars : \n ",am)

elif(b=='C'):

print("Enter your choice to see the combined performance of cars of 2011 and 2012 in various aspects")

print(" Enter 1 if you wish to see the 10 leading fuel efficient cars : ")

print(" Enter 2 if you wish to see the Leading power Performance Stats : ")

print(" Enter 3 if you wish to see the Best HorsePower Engine : ")

print(" Enter 4 if you wish to see the price list of cars (from highest to lowest) : ")

print(" Enter 5 if you wish to see the information regarding the most sold car : ")

t=(input("Enter your choice : "))

if(t=='1'):

aa=df.sort\_values(by='Fuel\_efficiency',ascending=False)

ab=aa.head(10)

ac=ab[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Fuel\_efficiency']]

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("10 leading fuel efficient cars are : \n ",ac)

if(t=='2'):

ad=df.sort\_values(by='Power\_perf\_factor',ascending=False)

ae=ad.head(1)

af=ae[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Power\_perf\_factor']]

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("Cars for leading Power performance stats are : \n ",af)

if(t=='3'):

ag=df.sort\_values(by='Horsepower',ascending=False)

ah=ag.head(1)

ai=ah[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Horsepower']]

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("Cars with best horsepower engine : \n ",ai)

if(t=='4'):

aj=df.sort\_values(by='Price\_in\_thousands',ascending=False)

ak=aj[['Manufacturer','Model','Latest\_Launch','Vehicle\_type','Price\_in\_thousands','Horsepower']]

pd.set\_option('expand\_frame\_repr', False)

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("price list of the cars : \n ",ak)

if(t=='5'):

al=df.sort\_values(by='Sales\_in\_thousands',ascending=False)

az=al.head(1)

am=az[['Manufacturer','Model','Vehicle\_type','Sales\_in\_thousands','Price\_in\_thousands','Horsepower']]

pd.set\_option('expand\_frame\_repr', False)

pd.set\_option('display.max\_rows', None)

pd.set\_option('display.max\_columns', None)

pd.set\_option('display.width', None)

pd.set\_option('display.max\_colwidth', None)

print("price list of the cars : \n ",am)